

# COUNTY OF YORK

## MEMORANDUM

**DATE:** August 17, 2001 (BOS Mtg. 9/18/01)

**TO:** York County Board of Supervisors

**FROM:** James O. McReynolds, County Administrator

**SUBJECT:** Application No. UP-570-01, Hampton Roads Sanitation District

### ISSUE

Request for a special use permit, pursuant to Section 24.1-306 (category 17, number 8) of the York County Zoning Ordinance, to authorize the installation of an 8 to 12-inch diameter pipeline from the HRSD York River Treatment Plant (515 Back Creek Road) to the BP/Amoco Refinery (2201 Goodwin Neck Road) to provide reclaimed wastewater for industrial use. Approval for two proposed alignments has been requested.

### DESCRIPTION

- Property Owner: Hampton Roads Sanitation District (HRSD) and BP/Amoco
- Location: Back Creek Road and Goodwin Neck Road
- Pipeline Area: Directional drilling method underneath Back Creek: 4,000 ft.  
Conventional trenching method along Back Creek Road and Goodwin Neck Road: 11,000 ft.
- Frontage: HRSD : Approximately 1,650 feet on Back Creek Road  
BP/Amoco: Approximately 12,000 feet on Goodwin Neck Road
- Utilities: Public water and sewer is available
- Topography: Generally flat, tidal and non-tidal wetlands present on site
- 2015 Land Use Map Designation: General Industrial
- Zoning Classification: IG – General Industrial
- Existing Development: Wastewater treatment facility and oil refinery
- Surrounding Development:
  - North: Back Creek; BP/Amoco property beyond
  - East: Single-family detached home
  - South: Single-family detached home
  - West: Fire Station #6; vacant BP/Amoco property beyond

- Proposed Development: Installation of an 8 to 12-inch diameter pipeline to provide reclaimed wastewater for industrial use.

## **CONSIDERATIONS/CONCLUSIONS**

1. The applicant requests authorization for two pipeline alignments for the construction of an 8 to 12-inch diameter pipeline to provide reclaimed wastewater from the York River Treatment Plant to the BP/Amoco Refinery. HRSD has proposed two pipeline alignments although it only plans to install one. The first proposed alignment would be installed using a directional drill method across Back Creek for a total length of approximately 4,000 feet. Directional drilling involves the installation of a pipeline in a two-stage process. The first stage consists of drilling a small diameter pilot hole along a designed directional path. The second stage involves enlarging this pilot hole to a diameter to which will accommodate the pipe and pulling the pipe back into the enlarged hole. Directional drilling is considered to be a minimal impact operation for pipeline placement in environmentally sensitive areas. The second proposed alignment would be installed using a conventional trenching method along Goodwin Neck and Back Creek Road for a total length of approximately 11,000 feet. The applicant plans to bid both alignment alternatives and requests approval for both alignments in order to allow a decision option once financial analysis and evaluation is complete. In addition to approval for two pipeline alignments, HRSD requests authorization to construct a 25' X 40' building and the placement of above-ground storage tanks to accommodate the additional filtration and treatment processes. In addition, HRSD requests authorization for future expansion of buildings and above-ground storage tanks in anticipation that additional users may be interested in utilizing the reclaimed water. The future expansion request is indicated on the sketch plan submitted with the application. If another pipeline construction were necessary to meet the service demands for future users, another use permit application would be required. I am satisfied with the future expansion request because it would involve a minor expansion that would have no impacts on the surrounding area because of the expansion location orientation towards the rear of the HRSD property.
2. The proposed pipeline will provide reclaimed wastewater to BP/Amoco for service water uses including cooling equipment, scrubbing, and fire suppression. Reclaimed (non-potable) water is highly treated wastewater that is subjected to an additional chlorination and filtration process. It does not meet drinking (potable) water standards for human consumption but has been deemed safe for a variety of applications including agricultural and residential irrigation, industrial service water, environmental wetlands restoration, and many other miscellaneous uses. At the request of the General Assembly, the Virginia Department of Environmental Quality (DEQ) convened an advisory group to study the reclamation and reuse of wastewater. A report was prepared and presented to the Governor and the General Assembly (House Document 92, 2000) that found that water reuse is under-utilized in the Commonwealth of Virginia and it deemed water reuse to be a beneficial method for potable water conservation. The report encourages and promotes water reclamation and reuse. The use of reclaimed water is increasing in other states such as North Carolina, Florida, and California. The DEQ strongly supports this project (see attached correspondence) and the state is providing a low-interest loan to fund this project. This project is a partnership between HRSD and BP/Amoco and it represents the first joint industrial-municipal wastewater reuse project in Virginia. It is estimated that the project will conserve approximately 500,000 gallons of drinking quality (potable) water on the Peninsula per day. (BP/Amoco currently purchases potable water from Newport News Waterworks to meet its service water needs. If approved, this project will provide non-potable water in lieu of potable water to meet BP/Amoco's service water needs.)

3. The York County Office of Economic Development believes that the pipeline has the potential to be attractive to future industrial users who could tap into it for service water uses and has requested that HRSD consider installing the pipeline using the conventional trenching method along Back Creek Road and upsizing the pipeline to twelve (12) inches if a financial agreement can be reached. HRSD will accommodate the Office of Economic Development's request if an agreement to pay the incremental cost of the pipeline upsizing and the cost differential in the preferred alignment option can be reached. HRSD is passing its operational costs to BP/Amoco and desires to install the pipeline at the most cost-effective alignment. The Office of Economic Development and the Industrial Development Authority will work to secure financing for its preferred alignment and the upsizing if this use permit is approved.
4. HRSD plans to construct the pipeline within the Virginia Department of Transportation (VDOT) right-of-way and on HRSD and BP/Amoco property. The Virginia Department of Transportation has commented that it has no preference regarding the two proposed alignments. Surveying work is not yet completed to determine if the entire pipeline alignment will stay within the VDOT right-of-way. HRSD is making every effort to keep the pipeline alignment within the VDOT right-of-way. If the pipeline construction requires property acquisition, HRSD will be required to provide copies of property acquisition agreements suitable to the County Attorney, prior to the start of construction.
5. The project site is located within the Resource Protection and Management Areas and tidal and non-tidal wetlands impact the site. According to the Division of Stormwater/Utility Engineering, utility construction is allowed within the Resource Protection and Management Areas without permitting as long as impacts to the environment are minimized and justified. Impacts on environmentally sensitive areas are anticipated to be temporary and occur only during the construction process. Since there will be a certain amount of soil disturbance created by placing the pipeline underground, erosion and sediment control plans and land disturbing activity permits will be required to be reviewed and approved by the Department of Environmental and Development Services. A Water Quality Impact Assessment will be required at the time of site plan submission to determine associated impacts and to address mitigation opportunities. A condition has been included in the proposed approving resolution to address the submittal requirements.

### **PLANNING COMMISSION RECOMMENDATION**

The Planning Commission considered this application at its regular meeting on August 8, 2001 and, subsequent to conducting a public hearing at which only the applicant spoke, voted 5:0 (Mr. Hendricks and Ms. White absent) to recommend approval.

### **COUNTY ADMINISTRATOR RECOMMENDATION**

The proposed 8 to 12-inch diameter pipeline and associated treatment facilities, structures, and future expansion will be used to transmit reclaimed wastewater from HRSD to BP/Amoco to provide service water uses for BP/Amoco and potential future customers. It appears that all environmental concerns associated with either alignment can be adequately addressed during review of the site plan and the erosion and sediment control plan. I believe that this project demonstrates an innovative potable water conservation strategy that should be encouraged for industrial activities, where possible, within the County. Therefore, based upon the considerations and conclusions, I recommend that the Board approve this application subject to the conditions contained in proposed Resolution No. R01-149.

Carter/3337

Attachments

- Zoning Map
- Project Narrative and Scope of Work statement (January 25, 2001)
- Revised Application Narrative (June 29, 2001)
- BP/Amoco Correspondence (January 18, 2001)
- VA DEQ Correspondence (January 29, 2001)
- *Wastewater Reclamation and Water Reuse in Virginia – Interested?*  
(The Conduit, Spring 2000)
- *Environmental Benefits of Horizontally-Controlled Directional Drilling*  
(Public Works Magazine, December 1992)
- *Waterworks congratulates BP Amoco on water reuse project*  
(Update, Regional Raw Water Study Group, Winter 2000/01)
- *BP Amoco plan helps conserve water*  
(Daily Press, December 20, 2000)
- HRSD Pipeline Alternates (May 2001)
- Sketch Plan (May 2001)
- Proposed Resolution No. R01-149